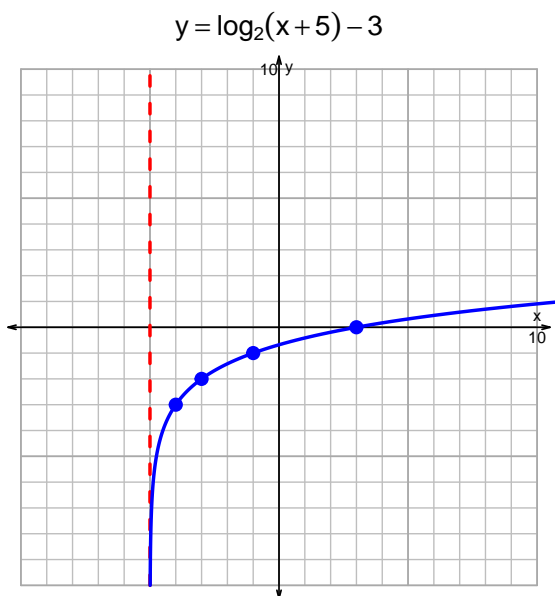


Name: \_\_\_\_\_

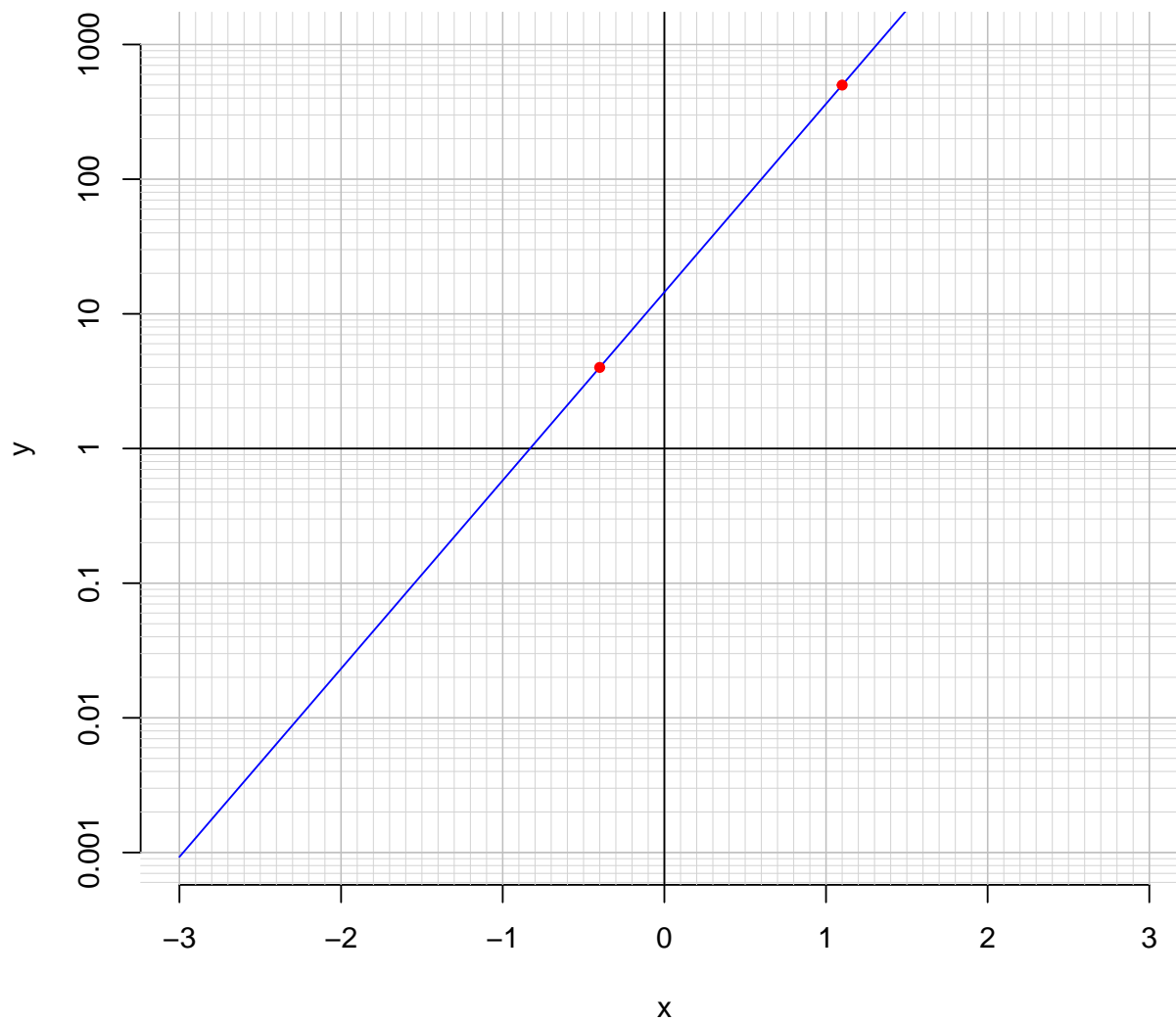
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## s18: EXP LOG (SLTN v368)

1. (10 pts) Graph  $y = \log_2(x + 5) - 3$  and  $y = 2^{x+1} + 3$  on the grids below. Also, draw any asymptotes with dashed lines.



3. (10 pts) An exponential function  $f(x) = 14.5 \cdot e^{3.22x}$  is graphed below on a semi-log plot.



- a. Using the plot above, evaluate  $f(-0.4)$ .

$$f(-0.4) = 4$$

- b. The inverse function is logarithmic.

$$f^{-1}(x) = \frac{1}{3.22} \cdot \ln\left(\frac{x}{14.5}\right)$$

Using the plot above, evaluate  $f^{-1}(500)$ .

$$f^{-1}(500) = 1.1$$